Review of State Priority Projects – Basin Pipe Project

Department of Agriculture and Water Resources

**Final Report**

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# Executive summary

This review focuses on the Basin Pipe State Priority Project (Basin Pipe Project) administered by the New South Wales Government (NSW) Department of Industry – Water (DoI Water). The Basin Pipe Project is part of a series of State Priority Projects under the Sustainable Rural Water Use and Infrastructure Program administered by the Department of Agriculture and Water Resources (DAWR).

This review assessed the governance, risk and control processes in place for the Basin Pipe Project to ensure effective use of Commonwealth funds. The review was conducted through a combination of document review, stakeholder consultation and on-ground inspection.

KPMG selected a sample of five approved water efficiency schemes (26% of all schemes) for desktop review, and within this sample, four schemes were selected for on-ground verification. The sample covered projects ranging in total funding from $300,000 to over $8 million, covering 31 properties in the Murrumbidgee and Gwydir river valleys.

The review did not identify any instances of non-compliance with key provisions of the Water Management Partnership Agreement (WMPA) between NSW and the Commonwealth. The review found that DoI Water had developed and implemented a number of controls, processes and structures to assist in the administration of the Basin Pipe Project, however some gaps in the project’s control environment were identified relating primarily to document management and maintenance of appropriate supporting evidence. These issues did not indicate inappropriate use of Commonwealth funds however, present an opportunity to strengthen the project’s control environment and improve future project activity.

# Introduction

## Background

DAWR has a number of programs that are administered by the States through the Sustainable Rural Water Use and Infrastructure Program (the Program) established under Part Four of the Intergovernmental Agreement (IGA) on the Murray-Darling Basin Reform. The IGA is an initiative that seeks to increase the productivity and efficiency of Australia’s water use.

The aim of the Program is to ‘bridge the gap’ to the sustainable diversion limits by enabling water reforms in the Murray-Darling Basin to deliver a sustainable cap on surface water and ground water divisions through a range of water recovery projects. The Program provides funds to State Priority Projects facilitated through Water Management Partnership Agreements (WMPA) with each of the Basin States.

**New South Wales Basin Pipe Project**

The Basin Pipe Project involves working with Stock and Domestic (S&D) water license holders across the inland valleys of New South Wales. Approved landholders are provided new on-farm water infrastructure – known as water efficiency schemes (schemes). These schemes are designed to preserve high security water and increase water and land management efficiency by improving the reliability of S&D water supplies. A scheme may include multiple landholders and is generally delivered through installing new water efficient pumps, pipes, tanks and troughs. The Basin Pipe Project is administered by DoI Water.

On agreement with relevant landholders, DoI Water plan and implement on-ground works to upgrade infrastructure in exchange for a proposed water saving. On the completion of works and the transfer of the relevant water savings, the infrastructure is formally handed over to the landholder(s) for ongoing management and maintenance.

The project has two primary components:

* Stock and Domestic: This component of the project exchanges a portion of an existing S&D water licence along the regulated inland rivers of NSW, for a new and modern pipeline scheme. Landholders apply to participate through an expression of interest process.
* Replenishment: This component of the project targets replenishment flow creeks, which are used to deliver replenishment flow orders along the length of the creek.

The maximum available funding for this project amounts to $137 million, as per the Commonwealth’s Sustainable Rural Water Use and Infrastructure Program. At the time of the review, the Basin Pipe Project had 19 approved schemes, representing approximately 12 gigalitres (GL) of potential water savings and more than $45 million in Commonwealth funding. The approved schemes are in the process of being implemented and no additional schemes are planned to be considered under this project.

The project commenced in June 2012, with an original completion date of October 2017. Following the completion of fieldwork, DoI Water and the Commonwealth agreed to vary the Basin Pipe Schedule to the WMPA to reduce overall funding to $45.6 million and extend the completion to June 2019.

## Purpose of this report

DAWR engaged KPMG to review the governance, risk and control processes for State Priority Projects administered through the Program to ensure effective use of Commonwealth funds. This engagement is limited to the Queensland Healthy HeadWaters Water Use Efficiency Project, New South Wales Basin Pipe Project and New South Wales Irrigated Farm Modernisation State Priority Projects.

This report presents findings and observations in relation to KPMG’s assessment of the Basin Pipe Project only, the objective of which was to:

*Review the governance, risk and control processes for State Priority Projects administered through Sustainable Rural Water Use and Infrastructure Program to ensure effective use of Commonwealth funds. (Refer* ***Appendix A*** *for further details on the scope).*

Separate reports have been produced for the Queensland Healthy HeadWaters Water Use Efficiency and New South Wales Irrigated Farm Modernisation State Priority Projects.

## Approach to this review

KPMG assessed the systems, processes and controls established for the governance and administration of the Basin Pipe Project against key program management areas (as outlined in engagement scope) and key requirements of the WMPA. This included governance mechanisms, risk management activity, financial management processes and monitoring activities. This was undertaken through a combination of stakeholder consultation, document review and on-ground inspection.

As part of the review, KPMG selected a sample of five approved schemes under the project (26% of all schemes) for desktop review, and of this, a sample of four schemes were selected for on-ground inspection. The sample covered projects ranging in total funding from $300,000 to over $8 million, covering 31 properties in the Murrumbidgee and Gwydir river valleys.

On-ground verification undertaken as part of this review did not include a detailed technical assessment of the quality and effectiveness of water infrastructure works. It provided an assessment of progress of works against reported outcomes and non-technical verification of the engineer's reports against on-ground works.

The findings of the report are based on the sample of schemes reviewed. Accordingly, it is possible there may be instances of fraud, error or non-compliance with laws and regulations within the project that have not been identified by this review. Refer to **Appendix B** for further information on the engagement approach.

## Summary of assessment

Overall, KPMG’s assessment of the Basin Pipe Project found that DoI Water have implemented a number of controls, processes and structures to assist in the administration of the project. We noted:

* No instances of non-compliance with key provisions of the WMPA;
* Appropriate governance and reporting mechanisms had been established;
* Strong procurement practices were demonstrated; and
* All proponent projects visually inspected appeared to correspond with scope and progress reported and maintained with only minor variations noted.

Notwithstanding the above, opportunities for improvement were noted in the following areas, some of which were already known to DoI Water. These areas for improvement related to:

* Improving the transparency of project status reporting;
* Strengthening controls around the acquittal process and approval of contractor payments to ensure appropriate supporting evidence is maintained;
* Reviewing record keeping practices for schemes completed earlier in the project; and
* The development of more detailed guidance / process documentation for project staff.

Refer to Section 4 for further details.

These issues did not indicate inappropriate use of Commonwealth funds however, provide a basis to strengthen the project’s control environment and improve future project activity.

This report has been structured around the key program management elements identified by KPMG. A summary of our overall assessment against these elements is captured in the table below.

| **Area of Focus** | **Key observations**  |
| --- | --- |
| Governance and reporting  | DoI Water have established appropriate governance arrangements and have demonstrated regular and fit-for-purpose project reporting. |
| Scheme design and approval | DoI Water has established appropriate processes and procedures to support the assessment and approval of schemes in accordance with the WMPA and Basin Pipe Project Schedule.  |
| Risk and issue management | DoI Water has a documented approach for identifying, assessing and communicating risks and issues. Key risks and issues appeared to be regularly reviewed and reported to stakeholders. |
| Financial management | DoI Water have implemented a number of processes, controls and systems to manage and monitor project expenditure however, processes could be improved to ensure documentation supporting individual scheme payments is retained and accessible. |
| Stakeholder engagement  | DoI Water established a number of stakeholder engagement mechanisms at the commencement of the project however, activity has been limited since 2016. DoI Water acknowledged that the level of stakeholder engagement was less than initially expected under the business case. Noting the original timeframe for completion of the project, DoI Water elected to focus on targeted communications and engagement with only interested stakeholders (rather than the broader community) to develop additional Basin Pipe schemes within the time available.  |
| Water transfer | DoI Water have appropriate processes in place to support and coordinate the water transfer process between landholders and the Commonwealth. |
| Scheme management | DoI Water appear to have established a number of processes to assist in the management of water efficiency schemes however, gaps were identified in the project’s document management protocols and guidance available to project staff. |
| On-ground verification | From visual inspection, installed works appeared to generally correspond with the documentation provided, and in particular, technical design documents and inspection reports. Minor variations from the original scope were noted however, these were either considered improvements to the design or resulted in improved cost management. |

Whilst this review was not designed to detect fraudulent activity, any activity warranting further investigation would be brought to the attention of management. Notwithstanding this, no instances of fraudulent transactions or behaviours were identified during the course of our fieldwork.

# Findings and observations

## Governance and reporting

*DoI Water have established appropriate governance arrangements and have demonstrated regular and fit for purpose project reporting.*

KPMG considered the governance mechanisms established to manage and implement the Basin Pipe Project. This included:

* Establishment of a clear governance structure.
* Defined roles and responsibilities.
* Regular, timely and fit for purpose reporting.

### Governance and oversight

The WMPA and the accompanying schedules between the NSW government and the Commonwealth (represented by DAWR) define the high-level contractual responsibilities of each entity and outline key reporting and governance requirements. The WMPA project schedule was periodically updated, through contract variations, to reflect actual project delivery activity and changes.

The Basin Pipe Project’s key governance arrangements, roles, objectives, and implementation strategies are defined in the *Basin Pipe Implementation Plan*. This document was developed in accordance with the WMPA and IGA on Murray-Darling Basin Reform. It provides a basis for the implementation approach adopted by DoI Water. Since its creation, elements of the initial plan have been amended and refined to accommodate the needs of the project.

Primary responsibility for managing the delivery of the project resides with the Manager, Water Efficiency and Infrastructure (Project Manager) reporting to DoI Director, Water Programs and Performance as project sponsor. The Project Manager is supported by a Basin Pipe Project team, with various implementation, technical and administrative responsibilities. The team structure and make-up has been clearly defined and documented. Key financial and contractual decisions are made in accordance with delegations, operating within the DoI Lands & Water Group. KPMG found that all staff consulted had a good understanding of their roles and responsibilities and the operation of the project.

The project has two key governance and oversight bodies, summarised as follows:

* *Project Governance Group – NSW State Priority Projects (PGG):* This is the primary inter-agency forum for the management and monitoring of NSW State Priority Projects. It is intended to provide high level program and project direction and monitor implementation for the suite of NSW state priority projects funded through the Commonwealth, including the Basin Pipe Project. This quarterly meeting is chaired by the DoI Director, Water Programs and Performance (Basin Pipe Project sponsor) and consists of representatives from the Commonwealth Government (represented by DAWR), NSW Department of Primary Industries (DPI), and DoI Water. The PGG have an established terms of reference and all meetings are minuted.
* State Priority Projects (SPP) Management Committee: The SPP Management Committee has been established by the NSW Government to manage and monitor the progress of all state priority projects coordinated by the NSW Government. The meeting is attended by all project leaders / managers of respective state priority projects and chaired by the SPP Coordinator (DoI Director, Water Programs and Performance) who is also the project sponsor for the Basin Pipe Project. This is a NSW Government forum and is not attended by the Commonwealth Government. The SPP Management Committee meets monthly where each project, including the Basin Pipe Project, provide formal status updates. All SPP meetings have formal minutes retained.

In addition to the above, the Basin Pipe Project team holds fortnightly internal team meetings with Basin Pipe project staff, including project officers and administrative staff, to discuss progress of schemes and raise any risks or issues facing the project.

### Reporting

In accordance with the WMPA project schedule, DoI Water provides milestone progress reports to DAWR. These are provided in line with milestones outlined in the WMPA project schedule. In accordance with the WMPA, these reports provide a description of progress and performance in various aspects of project delivery including financial management, project management, stakeholder engagement and progress against milestones. These reports are provided in support of milestone payment claims.

DoI Water produce monthly highlight reports to be presented at monthly SPP Management Committee meetings. These provide a brief description of project progress and financial management, as well as highlighting any key risks and issues to be considered. These reports are also presented at quarterly PGG meetings. In addition, the Basin Pipe Project Manager produces a monthly summary progress report for presentation to the NSW Executive. This report includes a short description of the projects status and outlines the top two risks or issues.

It was noted during fieldwork that the project had been experiencing risks / issues in relation to the timeframe for the delivery of the project, costs, landholder participation, and resourcing. These observations appeared to be accurately reported to relevant governance forums. Additionally, the project undertook a scoping review exploring these risks (amongst others) which has since been utilised to support the most recent variation to the schedule of the WMPA. Notwithstanding, KPMG noted possible improvements in relation to the reporting of progress reports – refer to Section 4.1 for further details.

All governance and reporting arrangements appeared to be operating as intended and no instances of non-compliance or significant control weaknesses were identified.

## Scheme design and approval

*DoI Water has established appropriate processes and procedures to support the assessment and approval of schemes in accordance with the WMPA and Basin Pipe Project Schedule.*

Landholders register their interest in participating in the Basin Pipe Project however, DoI Water is responsible for undertaking a detailed technical assessment of works which includes designing and planning the works that will result in water savings. Prior to entering into a funding agreement, DAWR, will undertake a value for money assessment (utilising the technical assessment undertaken by DoI Water) and provide final scheme approval.

Relevant landholders have been able to register interest through an expression of interest form or via direct contact with DoI Water. Once interest has been registered, a preliminary technical investigation is undertaken by DoI Water. During this phase, DoI Water works closely with the landholder(s) to determine if they meet project criteria and develop a design for appropriate works. This process involves:

* Reviewing and surveying of the site, existing infrastructure and available water products;
* Working with the landholder to agree a conceptual design for works that meets project criteria;
* Determining scheme funding requirements; and
* Obtaining landholder approval to proceed with the scheme.

DoI Water indicated that relevant internal technical experts are generally utilised to undertake this phase. DoI Water may also, in some circumstances, leverage expertise from DPI or external providers where internal staff are not available. The preliminary investigation informs the development of a project description, which is presented to the DAWR for review and approval prior to entering into a formal funding agreement with the landholder and commencing construction activities. Each project description is reviewed and approved by the Basin Pipe Project Manager prior to provision to DAWR. As per the WMPA, the project description includes:

* A conceptual design for proposed infrastructure;
* A survey of existing works and description of watering requirements;
* An estimate of water savings; and
* Details of funding requirements.

Sample testing found all project descriptions met WMPA requirements and were appropriately approved by DAWR prior to entering into funding agreements and commencing works.

KPMG did not identify any non-compliance or significant control weaknesses related to the scheme approval process.

## Risk and issue management

*DoI Water has a documented approach for identifying, assessing and communicating risks and issues. Key risks and issues appeared to be regularly reviewed and reported to stakeholders.*

DoI Water initially developed a Basin Pipe Project risk management plan as part of the business case supporting the Basin Pipe Project. This plan outlined the process by which DoI Water would identify, assess, treat and monitor risks - consistent with relevant risk management standards. As part of the development of the risk management plan, a detailed risk register was created identifying potential risks to the project, should it be implemented. The risk register covered all key project risk areas, including but not limited to the scope, project management and financial management.

Following the approval of the business case, a risk management workshop was held to validate risks identified during the business case and identify additional project risks. This formed the basis of the risk register maintained for the life of the project. The detailed project risk register covers a broad range of administrative and delivery risks. Each risk is rated and provided a mitigation strategy. DoI Water review and update the risk register at least quarterly prior to each PGG meeting.

Project risks and issues appeared to be regularly reported through various governance forums including the SPP Management Committee and PGG meetings, as well as operational project meetings. A summary of key risks and issues is included in each highlight report, with the detailed risk register attached for reference. Key risks and issues are also reported to the NSW Executive through monthly project status reports.

As noted in Section 3.1, DoI Water have also completed a scoping review exploring risks impacting the project. This was presented to the Commonwealth (in draft) in September 2017 and finalised by DoI Water in May 2018.

DoI Water appear to have established relevant risk management processes and controls to manage risks and issues and reporting appeared to be regular and fit for purpose.

## Financial management

*DoI Water have implemented a number of processes, controls and systems to manage and monitor project expenditure however, processes could be improved to ensure documentation supporting individual scheme payments is retained and accessible.*

KPMG assessed the adequacy of key systems, processes and controls relating to the tracking of budgets, actual expenditure and project schedules as well as acquittal of funds and milestones outlined in the Basin Pipe Schedule to the WMPA.

### Basin Pipe Project financial management

DoI Water appears to have appropriate financial management controls in place to manage and monitor project expenditure and acquittal of funds to the Commonwealth.

DoI Water claim payments from the Commonwealth based on milestones outlined in the Basin Pipe Schedule to the WMPA. The progress milestones claims are determined based on the value of an agreed proportion of water savings expected to be delivered through schemes and transferred to the Commonwealth. Based on a review of a sample of payment claims, DoI Water appear to be claiming funds in accordance with the WMPA.

The Commonwealth funds provided are expected to cover all aspects of the delivery of the project, including project administration and the planning and implementation of schemes. The DoI Water contribution to the Basin Pipe Project is made via additional water transfers to the Commonwealth. Any expenditure in excess of the Commonwealth funding provided must be covered by the NSW Government.

DoI Water highlighted that there has been a significant reduction to the required project funding due to scope changes. As a result, DoI Water and the Commonwealth have recently negotiated a variation to the Basin Pipe Schedule to the WMPA to reflect this change in funding. With the reduction in funding requirements and payment claims being made in advance, DoI Water has not required additional Commonwealth funds since FY2014/15. Funds have been held by the NSW Treasury and drawn upon to meet expenditure needs. As per the WMPA, any interest incurred from holding funds is returned to the Commonwealth. A detailed breakdown of the interest earned estimate is provided to DAWR quarterly. DoI Water deduct any interest earned from the following milestone payment claim. Any residual funds will be returned to the Commonwealth at the conclusion of the project, including any outstanding interest earned over the period.

### Financial management of schemes

As discussed earlier, DoI Water is responsible for managing all aspects of scheme planning and implementation, including financial and cost management. As part of the each scheme project description provided to the Commonwealth, DoI Water prepare a scheme budget covering both internal staff costs and service provider costs. This is used as a basis to track scheme costs. The budget for particular aspects may be refined as detailed technical specifications are determined however, the funding limit for each is determined by the value of the agreed proportion of water savings expected to be delivered through schemes and transferred to the Commonwealth.

The majority of expenses for each scheme is service provider costs. Contractors and consultants are engaged to undertake various aspects of the planning and implementation, including design, review of environmental factors, construction and contract supervision. Each provider is engaged through a procurement process (refer to Section 3.7). The relevant works contract or agreement specifies the individual payment amounts and frequency. This can be based on fixed fee, defined deliverables or progress milestones, depending on the service provided.

KPMG considered the financial management controls and processes for the processing of service provider payments. The accuracy or validity of information submitted as part of payment claims was not tested. The following financial controls were noted:

* Payments can only be made against an approved purchase order within the DoI Water financial management system. Purchase orders are approved by relevant financial delegates based on value. All relevant contractual approval documentation (including contract procurement approvals) is stored in a ‘procure to pay system’ for the financial delegate reference prior to purchase order approval.
* DoI Water have established a process where-by all service provider claims are reviewed and approved prior to payment. Claims are reviewed and endorsed by a scheme Project Officer and Project Manager to ensure goods and services have been received in accordance with contractual terms. The claim is then provided to the Basin Pipe Project Manager to approve for payment. This is subsequently provided to administrative staff for processing and payment. Relevant endorsement and approvals are recorded in email correspondence. DoI Water indicated that this was an additional process implemented by the Basin Pipe project, and was not a requirement under the standard acquittal process. Note, claims for payment related to construction services must also be endorsed by a contract supervisor and supported by an on-ground inspection of works.
* Lead Project Officers for each scheme maintain a ‘*contract audit spreadsheet’*. The spreadsheet is used to track actual invoiced expenditure and quantities, against contracted amounts (cost and bill of quantities). It provides a detailed breakdown and record of individual invoices for all scheme contracts and acts as a mechanism to track actual spend and progress. A contract audit spreadsheet was sighted for all schemes sampled.

KPMG selected a sample of service provider payment claims from each of the selected schemes for testing. Payments selected focused on claims related to contract supervision and construction as these were generally the largest in value. Our observations are as follows:

* An approved purchase order was sighted for all claims selected.
* All payments amounts (as per SAP) agreed to the details and amount as per the purchase order.
* Approval or sign-off on goods and services received by the Project Manager prior to payment could not be sighted for the majority of payments selected. DoI Water was able to provide examples of how this process occurred in practice. Discussion indicated that there is no current requirement to store the final email approval on project files. Due to staff turnover and the lack of formal processes for recording this approval, these were not readily available for testing. Refer to Section 4.2 for further details.

## Stakeholder engagement

*DoI Water established a number of stakeholder engagement mechanisms at the commencement of the project however, activity has been limited since 2016. DoI Water acknowledged that the level of stakeholder engagement was less than initially expected under the business case. Noting the original timeframe for completion of the project, DoI Water elected to focus on targeted communications and engagement with only interested stakeholders (rather than the broader community) to develop additional Basin Pipe schemes* within the time available*.*

DoI Water established a stakeholder communications strategy at the commencement of the project. This defined key stakeholder groups and engagement mechanisms. DoI Water indicated that key communication channels utilised during the project included website communications, mail-outs and targeted consultations. The strategy is supported by communication and media protocols, which outline the agreed protocols between the Commonwealth and the NSW Government, including branding, templates and acknowledgements.

It was indicated that the Basin Pipe Project engagement activities focused largely on relevant licence holders in the in-scope valleys through mail-outs and direct engagement. A large targeted mail-out activity was undertaken during 2015 and 2016 in the Murray and Murrumbidgee valleys. These activities were used to gauge interest within the selected areas to then inform more focused and targeted consultations with any interested stakeholders. Noting the original completion date of October 2017 for the project, DoI Water indicated that no further broad stakeholder engagement activity has occurred since the 2016 mail-out, other than general information and fact sheets. DoI Water elected to focus on direct consultation with interested landholders only, in order to develop these into viable Basin Pipe schemes within original project timeframes. The project undertook consultations with the interested landholder(s) to develop conceptual designs and determine funding requirement. This process provided landholders with a detailed understanding of the project and benefits of potential works. More recently, engagement and communication activity has been limited to delivery activities for approved schemes.

DoI Water also regularly engage with DAWR, as discussed in Section 3.1. This includes meeting with DAWR quarterly, as well as regular ad hoc communication via phone and email. DAWR has recently established fortnightly meetings with the Basin Pipe Project Manager to discuss project progress, and report on and manage schemes that are considered high risk.

Noting the limited broader stakeholder engagement activity, the Basin Pipe scoping review highlighted that the stakeholder engagement, to the extent that was expected under the business case, was not undertaken. Basin Pipe scoping review notes that a number of other factors[[1]](#footnote-1) may have influenced this, including:

* The achievement of and reduction in water recovery targets in selected in-scope valleys; and
* Changes to access to replenishment flow schemes due to change in water recovery targets.

However, the review recognises that the lack of stakeholder engagement presented a risk to the project and warrants further analysis. A key learning highlighted in the scoping review was the need for a detailed analysis by NSW of reasons why uptake did not met expectations.

KPMG have not recommended any further action in this area, noting DoI Water’s current focus on the delivery of remaining schemes and awareness of the stakeholder engagement issues.

## Water transfer

*DoI Water have appropriate processes in place to support and coordinate the water transfer process between landholders and the Commonwealth.*

The Basin Pipe project delivers water to the environment through the transfer an agreed proportion of proposed water savings (as agreed in the WMPA) to the Commonwealth achieved through on-ground works. The agreed proportion of water savings are outlined in the funding agreements with landholders and / or entitlement holders. Water entitlement holders transfer water savings to the NSW Government represented by the Water Administration Ministerial Corporation (WAMC). This in turn is transferred to the Commonwealth. Transfer of a water entitlement is effected by either a s71Q transfer of the share component under the *Water Management Act* from the NSW Government to the Commonwealth or a s71I correction or amendment to the water access register.

As per the WMPA, DoI Water is responsible for facilitating the transfer process, both to the NSW Government and the Commonwealth Government. The project team is not responsible for enacting the water transfer process however, it plays an important role in coordinating all parties involved. This includes monitoring progress and the completion and lodgement of relevant documentation. DoI Water have developed processes to support the transfer process. Some key process elements include:

* Initial title searches to confirm entitlement holder and relevant details.
* Coordinate completion, endorsement and lodgement of relevant applications for the subdivision / transfer of the applicable share of water entitlement to the WAMC.
* Notification to the Commonwealth, identifying the relevant entitlement held by WAMC which will require transfer and initiating the transfer process.
* Coordinating the completion and lodgement of water transfer applications on behalf of the NSW Government for the transfer of water to the Commonwealth.

DoI Water has developed process documentation outlining key activities involved in the water transfer process. DoI Water have indicated that a dedicated officer is assigned to coordinate the water transfer process for each scheme.

The transfer of water savings to the NSW Government only occurs when the scheme is completed and commissioned (properly installed as designed, tested and maintained). DoI Water indicated that for more recent schemes, the project is seeking to obtain entitlement holder’s approval to commence the transfer process prior to completion of works to meet project timeframes. KPMG did not identify any non-compliance or control weaknesses related to the water transfer process.

## Scheme management

### *DoI Water appear to have established a number of processes to assist in the management of water efficiency schemes however, gaps were identified in the projects document management protocols and guidance available to project staff.*

As per the WMPA, DoI Water are responsible for planning and managing all aspects in the delivery of approved schemes. The key phases involved in the delivery of schemes are briefly described below:

* *Preliminary investigation*: Initial consultation and surveying activity with the landholder to assess eligibility and inform a conceptual design for works. Landholders will also provide in-principle agreement to continue with the scheme.
* *Project description:*A project description is prepared for DAWR for review and approve. This outlines the proposed works, proposed water savings, and funding requirements for the scheme. This document must be approved prior to establishing a formal funding agreement and the commencement of construction activities.
* *Funding agreement:*A formal agreement is entered into by DoI Water and relevant landholders describing the infrastructure to be built, details of funding limits, and the amount of water to be exchanged. A funding agreement must be entered into prior to construction occurring.
* *Review of Environmental Factors (REF) / Aboriginal Cultural Heritage Assessment (ACHA):* A REF/ACHA is prepared to provide an assessment of impacts of the proposed works on the environment and any potential impact on aboriginal heritage sites in the landscape. It determines whether referral is required under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Results of this phase may also lead to changes to the proposed design. This activity is undertaken by a suitably qualified service provider.
* *Survey:* This phase involves undertaking a detailed survey of the proposed works, including proposed pipeline routes, landscape and associated infrastructure. This activity may be undertaken by DoI Water or an outsourced service provider.
* *Design:* Informed by the surveying phase, a detailed design of infrastructure works is developed that meets project design criteria. This will include undertaking hydraulic modelling of proposed design. This phase will also determine the type and quantity of materials/equipment required for the design. This activity may be undertaken by DoI Water or an outsourced service provider.
* *Construction:*This phase includes the tender, engagement and management of a suitable construction contractor to deliver proposed works as designed. This phase includes final commissioning reviews of infrastructure as well as a formal performance evaluation of the construction provider at completion.
* *Water transfer:*The process of transferring / surrendering an identified proportion of water savings to the NSW Government.This generally occurs following completion of works.

### KPMG considered the processes and controls in place to manage and monitor key phases of water efficiency schemes. Key areas of focus are discussed in this section.

### Management and monitoring of schemes

Multiple Basin Pipe Project staff are involved in various aspects of the delivery of a scheme. As such, DoI Water assign a lead Project Officer, also known as a Scheme Co-ordinator, to manage and monitor all scheme activities across all phases. The lead Project Officer will act as a point of contact for scheme enquiries.

DoI Water indicated that no mandated project management tool was in place for the Basin Pipe Project, and as such, methods and tools used varied across schemes and project leads. In mid-2017 DoI Water implemented ‘Asana’ as their primary project management tool. This software is now used to plan and monitor all key components across individual schemes. It also provides the ability to assign tasks to specific staff. KPMG were provided a walkthrough of the Asana tool, which appeared fit-for-purpose.

The Basin Pipe Project Manager maintains a scheme database, which captures summary information for all schemes. This is periodically updated by Project Officers to inform regular reporting activities.

### Record keeping

DoI Water utilises an electronic records management system (CM9) to maintain and store documentation related to the Basin Pipe Project. CM9 serves as the official record management system for DoI Water, and all documentation relevant to the project is intended to be recorded on CM9.

During sample testing, KPMG noted a number of instances where project documentation could not be located or was not readily available. The missing documentation related to schemes commenced early in the project. These documents included the following:

* Two instances where the construction contractor evaluation report could not be sighted;
* Two instances, for the same scheme, where the tender assessment/recommendation could not be sighted; and
* For one scheme, construction progress meeting minutes and inspection reports could not be sighted.

While the above documents did not relate to key contractual or decision making documents, such as project descriptions, funding agreements or third party contracts, this still presents a weakness in the project’s document management controls.

Discussions with the Project Manager indicated that the project did not initially have strict document management protocols in place, and documentation was initially stored and managed on local servers. Since joining the project, the current Project Manager has sought to improve document management processes. This has included promoting the use of CM9 as the primary records management system and the creation of a standard folder structures for all schemes. The Project Manager indicated however, that documentation related to earlier schemes had not been fully transitioned to CM9 and were still largely retained on local servers. Gaps in documentation were not fully known (refer to Section 4.3).

### Staff training and guidance

Discussions with DoI Water identified that all project staff have undertaken program management training, provided by an external service provider. DoI Water have also defined skill / qualification requirements for all roles within the team. Staff experience included program management, procurement, financial management and / or engineering, as well as experience in other water infrastructure projects or similar works. Where specific technical knowledge or skills are required or not available internally, DoI Water engage specialist providers e.g. for REF/ACHC, survey and design activities.

DoI Water have developed high-level guidelines (without detailed process level information) for the project, however, these have not been reviewed since 2012. Standard templates for key documents such as contracts, funding agreements and project descriptions have also been developed and regularly used by staff. However, KPMG noted DoI Water had limited standard operating procedures or detailed guidance material available to staff for day-to-day operations (refer to Section 4.4 for further details).

### Procurement

DoI Water may engage multiple providers to assist with various phases in the delivery of a scheme however, primarily engage third parties to undertake the following activities:

* REF/ACHA – A specialist provider is required to undertake REF/ACHA activities.
* Construction – All construction of infrastructure is outsourced to suitably skilled service providers.
* Contract supervision – A provider is engaged to assist DoI Water with monitoring and managing the construction contract, including undertaking inspections, supporting construction payment claims and verifying compliance to technical design and construction standards.

When undertaking any procurement, DoI Water indicated that the Basin Pipe Project adheres to requirements of the DoI Procurement Policy and Procedures. Some key procurement processes and controls noted include:

* At least one quote is required for procurements valued below $30,000 (ex GST).
* At least three quotes and a simple evaluation plan are required for procurements valued between $30,000 (ex GST) and $150,000 (ex GST).
* All procurements valued over $150,000 (ex GST) require a procurement strategy endorsed by the Chief Procurement Officer, a tender evaluation plan and report, and a minimum of three quotes if not an open tender.
* For construction contracts, DoI Water establish a Tender Evaluation Committee with suitably qualified staff from across DoI.
* Procurement recommendations and contracts must be executed in accordance with DoI financial delegations.

DoI Water have also established a dedicated Procurement Officer to co-ordinate and oversee all Basin Pipe procurement activity. This includes reviewing tender documentation and related procurement documents.

KPMG undertook sample testing focusing on procurements related to REF/ACHA, construction and contract supervision for the sample of schemes selected. While an extensive review of all procurement and contract management activities was not undertaken, KPMG made the following observations:

* All contracts sighted were appropriately executed prior to payment being made.
* Where required, all procurement strategies and tender evaluation reports were completed in accordance with procurement policy.
* As noted earlier in the report, two instances were identified where the tender assessment / recommendation could not be sighted. Both procurements were valued at less than $150,000.

DoI Water appear to have implemented strong procurement practices, with some improvements to document management noted (refer to Section 4.3).

### Contract supervision

Contract supervisors play an important role in managing and monitoring the progress of construction. Contract supervisors are involved in key aspects of the administration of construction contracts, including requesting and reviewing management plans and attending construction start-up consultations. Importantly, contract supervisors also undertake regular site inspections to monitor the contractor’s compliance with the technical and commercial conditions of contract. All inspection reports are provided to DoI Water for review.

DoI Water hold monthly progress meetings with the construction contractor and contract supervisor. DoI Water indicated that Project Officers also undertake periodic site visits to monitor progress. DoI Water indicated that site visits were generally conducted monthly, but varied depending on site location. At the conclusion of construction, as per contractual requirements, a formal performance evaluation of the construction contractor is also undertaken. This is conducted in consultation with the contract supervisor.

As noted earlier in this report, sample testing identified two instances where the construction contractor evaluation report could not be sighted, and for one scheme, construction progress meeting minutes and inspection reports could not be sighted (refer to Section 4.3).

### Contract variations

Contract variations are proposed by project officers, reviewed and endorsed by the Basin Pipe Project Manager and executed by an appropriate delegate based on financial value. Where required, all other variations sighted within the sample of schemes were executed in accordance with the established processes.

### Conflict of interest management

DoI Water apply DoI conflict of interest policy and procedures where all staff are required to complete general conflict of interest declarations. Additionally, DoI Water noted that they apply strict conflict of interest processes during procurement and tendering activities. All staff involved must declare any conflicts prior to being involved in any procurement activity. Additionally, large procurement activities (over $150,000) are overseen and reviewed by a Procurement Officer to ensure the method of selecting tenderers complied with applicable procedures, including conflict of interest protocols.

As noted earlier, DoI Water engage a suitably qualified contractor to provide supervision services over construction contracts. KPMG noted, as part of the contractual agreement, that contract supervisors must also declare that they have no conflict of interest and must immediately inform DoI Water in writing upon becoming aware of any conflict.

### Compliance management

The onus of compliance with relevant legislation during construction of infrastructure rests with the construction contractor. DoI Water utilises the NSW standard contracting suite for construction contracts, specifically the GC-21 contract template. The contractor’s responsibility for ensuring compliance with relevant NSW and Commonwealth legislation is clearly outlined in the contract. Prospective tenderers are also required to demonstrate their ability to meet safety and relevant building code requirements as part of the tendering process. In addition to this, at contract agreement stage, DoI Water provides a summary of contract requirements which details the contractor’s legislative compliance requirements. Contract supervisors also undertake regular inspections on behalf of DoI Water to determine if the construction meets technical specifications. Inspections also identify compliance issues if they become apparent. DoI Water obtain the required approvals prior to construction in order to undertake planning and design work. All other approvals must be obtained by the construction contractor. This also forms part of contractual requirements for the contractor and is monitored by the contract supervisor.

## On-ground verification

*From visual inspection, installed works appeared to generally correspond with the documentation provided, and in particular, technical design documents and inspection reports. Minor variations from the original scope were noted however, these were either considered improvements to the design or resulted in improved cost management.*

In addition to desktop and compliance testing, KPMG undertook on-ground verification of four schemes (out of the sample of five approved schemes). As part of this phase, a KPMG mechanical engineer was engaged as a specialist to assist with the assessment. The purpose of the site visits were to:

* Undertake an assessment of the progress made in implementing on-ground works and verification of engineering reports and the information gathered during desktop review; and
* Follow up any risks or gaps identified during desktop review.

Noting the size and complexity of works, inspections focused on key and accessible infrastructure components. The inspections did not test the operating effectiveness of installed works.

For the infrastructure inspected, on-ground works appeared to correlate with the reported project status and scope of works as agreed and recorded. Minor deviations from the original scope were noted however, these were either considered improvements to the design or resulted in improved cost management. These were not considered significant changes and did not appear to negatively impact the operation of the infrastructure or change intended outcomes. For one scheme inspected, with works still underway, we have suggested further action prior to completion of the scheme (refer to section 4.5 for further details).

# Areas for improvement & lessons learnt

## Project reporting

DoI Water regularly report on the status of individual schemes, via monthly and quarterly highlight reports. These reports indicate the stage of each scheme and if there are any risks in relation to meeting any upcoming milestones. A scheme is reported as complete if construction of infrastructure has been completed and water transfer has occurred.

During testing, KPMG identified two schemes that were reported as complete however, the formal handover of the infrastructure to landholders for ongoing management had not yet occurred. At the time of fieldwork, DoI Water was still responsible for the management of the infrastructure for these two schemes. KPMG confirmed with DoI Water that construction and water transfer were complete. DoI Water indicated that minor contractual issues with service providers were still being resolved. This has prevented formal handover from occurring. Onsite inspection undertaken by KPMG confirmed that construction had been completed and infrastructure appeared operational.

To improve the accuracy and transparency of progress reporting, DoI Water should consider expanding current reporting to include the notification of formal handover of infrastructure to landholders.

## Financial approvals

DoI Water have established a process where-by all service provider claims are reviewed and approved prior to payment. Claims are reviewed and endorsed by a scheme Project Officer and Project Manager to ensure goods and services have been received in accordance with contractual terms. DoI Water indicated that this was an additional process implemented by the Basin Pipe project, and was not a requirement under the standard acquittal process.

It was identified that emails evidencing the above approval are not actively recorded on project files as part of this process. While DoI Water were able to provide examples of the approvals process, only one of the sampled payment approvals could be evidenced. KPMG notes, that in the absence of system controls, the established process appears to be designed appropriately however, this could not be consistently verified as operating effectively across the sample. Additionally, we noted that the process was not formally documented in procedural or guidance documents (refer to Section 4.4).

The approval to spend up to the contractual amount was obtained through the approval of a purchase order by a financial delegate and was sighted during sample testing however, appropriate evidence to support associated payment should also be maintained. The approval of goods and services received provides evidence that services have been delivered as expected and in accordance with the original order or contract and can therefore be paid. Additionally, as this relates to the expenditure of public monies, further layers of accountability and transparency should be afforded.

DoI Water should update the invoice approval process to ensure requisite approvals and evidence are appropriately recorded and stored on project files. Additionally, DoI Water should consider documenting the approvals process and formally communicating it to relevant staff.

## Document management

KPMG noted a number of instances where project documentation could not be located or was not readily available for the sample of schemes tested. These instances related to schemes that had commenced earlier in the project. Discussions with the Project Manager indicated that the project documentation related to earlier schemes and had not been fully transitioned to CM9 but were still retained on local servers.

Prior to the formal closure of the Basin Pipe Project, DoI Water should ensure all relevant project documentation is transitioned to CM9 with importance placed on evidence of key decisions. For any gaps identified, file notes should be prepared to provide an appropriate audit trail.

## Staff guidance

KPMG noted limited detailed guidance or standard operating procedures for staff. For example, no specific process level guidance or standard operating procedures were available to outline in detail:

* Invoice acquittal and approval process;
* Scheme review and approvals process; or
* Ongoing document management protocols.

While Basin Pipe staff consulted appeared to have a good understanding of key processes, an important aspect of improving consistency and quality across processes is to ensure the team is operating from formalised and agreed upon procedures. This is particularly important where the team is geographically dispersed like the Basin Pipe team. Additionally, this assists with staff on-boarding and knowledge management.

For future projects, DoI Water should ensure detailed guidance and/or standard operating procedures covering key or recurring processes are developed and made available to staff.

## Inspection follow-up

During on-site inspection, KPMG was unable to confirm whether actual capacity of tanks installed adjacent to the supplementary pump stations corresponded to the agreed design. Inspection appeared to indicate capacity may differ to design however, this could not be confirmed whilst on site due to the visual nature of the inspection. Noting works on this scheme are still underway and final inspection and commissioning has not yet occurred, no significant issues have been raised.

KPMG suggest DoI Water verify whether specified tanks still meet design requirements prior to completion of works and determine if a contract variation is required. Details of the relevant tanks have been communicated to management.

# Appendices

## Engagement objectives and scope

**Objectives**

Review the governance, risk and control processes for State Priority Projects administered through Sustainable Rural Water Use and Infrastructure Program to ensure effective use of Commonwealth funds.

**Scope**

This engagement was limited to the Queensland Healthy HeadWaters Water Use Efficiency Project, New South Wales Basin Pipe Project and New South Wales Irrigated Farm Modernisation Project. The assessment focuses on the following areas:

* **Program administration processes**, including financial systems, governance arrangements, and risk management processes to ensure they are efficiently and consistently implemented.
* **Program processes** in place to manage risks, and program compliance to ensure delivery of water contracted for recovery (including consideration of State involvement in the water entitlement transfer process), and the adequacy of controls to regularly review procedures and adjust as required.
* **A review of up to 25 per cent of projects** to verify that the requirements stated under the respective Project Schedules and Works Agreements have been met. Sampling methodology for selecting these projects considered funding rounds and catchment areas, as well as individual project size and scale. A random sample from the selected projects was also be verified on-ground.

This review did not include a detailed technical assessment of the quality and effectiveness of water infrastructure works. It provides an assessment of progress of works against reported outcomes and verification of the engineer's reports against on-ground works.

The scope of this report is limited to the New South Wales Basin Pipe Project.

\*Please refer to the *Statement of Works including Terms of Reference,* for further detail on the scope of work.

## Approach

KPMG undertook the following activities in the conduct of this review.

**Initiation**

* Held an initial scoping meeting with the DAWR stakeholders, to inform the development of a project plan detailing approach, timeframes and governance arrangements for the review.
* Provided the project plan to project stakeholders for review.

**Fieldwork**

* Held an introductory discussion with DoI Water staff and obtained documentation to gain an understanding of administration arrangements, eligibility criteria, funding conditions and requirements, reporting arrangements, performance monitoring and risk management.
* Developed a testing checklist to support assessment of the Basin Pipe Project. The checklist was based on better practice program management principles and key program requirements, including the WMPA, BPP project guidelines and funding agreements.
* Selected a judgemental sample of five (26%) approved schemes for desktop assessment against the testing checklist. Sample selection took into consideration size of works, catchment area, value of funding and proposed water savings. The resultant sample covered schemes ranging in total funding from $300,000 to over $8 million in the Murrumbidgee and Gwydir river valleys.
* Conducted a site visit at the DoI Water Inverell state office. Through a combination of stakeholder consultation and document review, KPMG:
	+ Understood and reviewed systems, processes and controls for the governance and administration of the relevant program to ensure these have been appropriately designed and implemented, including governance mechanisms, risk management, monitoring activities.
	+ Reviewed the selected sample of approved projects for compliance with requirements outlined in the testing checklist.
	+ Selected a refined sample of four schemes for on-ground verification – a subset of the original sample.
* Conducted site visits for a further four approved schemes and undertook the following:
	+ Gained an understanding of the processes in place at the proponent / funding recipient to ensure they comply with the funding conditions.
	+ Obtained feedback from available landholders on the project.
	+ Undertook an assessment of the progress made in implementing on-ground works and verification of engineering reports, namely:
		- Scope of works in approved; and
		- Inspection reports.
	+ Followed up any risks or gaps identified during desktop assessment.

**Reporting**

* Sought additional information and discussed observations with the DoI Water and DAWR to confirm factual accuracy of observations prior to the Draft report.
* Developed a draft report for circulation to relevant stakeholders.
* Finalised report, based on consolidated feedback from the DAWR and DoI Water stakeholders.

## Disclaimer

**Inherent Limitations**

This report has been prepared as outlined in Appendix B of the report. The procedures outlined in the approach do not constitute a statutory audit nor a comprehensive review of operations.

No warranty of completeness, accuracy or reliability is given by KPMG in relation to the statements and representations made by the department and client agencies, nor the information and documentation provided by the department and client agencies, as part of the process used in preparing this report.

We have not sought to independently verify those sources unless otherwise noted within the report. KPMG is under no obligation in any circumstance to update this report, in either oral or written form, for events occurring after the report has been issued in final form. The findings in this report have been formed on the above basis.

Due to the inherent limitations of any internal control structure, it is possible that fraud, error or non-compliance with laws and regulations may occur and not be detected. Further, the organisational control structure, within which the State Priority Project operates, has not been reviewed in its entirety and, therefore, no opinion or view is expressed as to its effectiveness of this greater control structure. The procedures performed were not designed to detect all weaknesses in control procedures as they are not performed continuously throughout the period and the tests performed on the control procedures are on sample basis. Any projection of the evaluation of control procedures to future periods is subject to the risk that the procedures may become inadequate because of changes in conditions, or that the degree of compliance with them may deteriorate. ‘Review’ in this Report is not used in the context as outlined in the Australian Auditing Standards.

**Third Party Reliance**

This report is solely for the purpose set out in Appendix A and for the DAWR’s information, and is not to be used for any other purpose or distributed to any other party without KPMG’s prior written consent.

This report has been prepared at the request of the department in accordance with the terms of KPMG’s work order dated 23 March 2018. Other than our responsibility to the department, neither KPMG nor any member or employee of KPMG undertakes responsibility arising in any way from reliance placed by a third party on this report. Any reliance placed is that party’s sole responsibility.

**Accessibility**

To comply with the Commonwealth Government’s accessibility requirements, two versions of this Report are available: a KPMG-branded PDF version and an unbranded Microsoft Word version. The KPMG-branded PDF version of this Report remains the definitive version of this Report.

1. Note the factors included in the Basin Pipe scoping review were not validated by KPMG [↑](#footnote-ref-1)